

UNITED STATES DEPARTMENT OF AGRICULTURE
Rural Electrification Administration

STATEMENT PLACED BY THE RURAL ELECTRIFICATION ADMINISTRATION
INTO RECORD OF THE HEARING ON RURAL TELEPHONES BEFORE AN
AGRICULTURE SUBCOMMITTEE, HOUSE OF REPRESENTATIVES, ON
February 14, 1949

THE STATUS OF FARM TELEPHONE SERVICE

Farm telephone service is a part of the larger rural picture. As in the case of rural electrification, farms, rural nonfarm homes, and numerous community establishments are involved. However, this statement is concerned primarily with farm telephone service - farms as defined by the Agricultural Census. Thus, all estimates provided herein are based on the number of farms (5,859,169) in the United States as enumerated by the 1945 Census of Agriculture. Any plans for a farm telephone program must be considered in terms of the whole rural picture.

Organization of the telephone industry.

According to the Bureau of the Census and information released by both the Bell and independent portions of the telephone industry, there are about 6200 independent companies in addition to 25 associated Bell companies. To complicate this picture even more, there are between 50 and 60 thousand cooperative and mutual systems and lines that serve rural areas. The independent companies, the cooperatives and mutual systems range in size from a very few subscribers to several thousand subscriber stations. Numerous small independent companies are owned by enterprising individuals who build and operate telephone systems as an ordinary business enterprise. Thousands of small systems and connecting lines, however, are maintained by groups of farmers on a mutual

basis without any substantial organization and with a minimum of financial resources. Many of these smaller systems have not gone to the trouble of incorporation.

A review of the telephone industry in Nebraska is indicative of the character of the industry throughout large portions of the United States. For example, of the 146 Nebraska companies, as reported in the 40th Annual Report of the Nebraska State Railway Commission, only 29 companies had more than 500 subscriber stations, and 58 had less than 200 subscribers. One hundred of these companies had operating revenues in 1947 of less than \$10,000.

A similar situation exists in West Virginia, as reported by the 33rd Annual Report of the Public Service Commission of West Virginia. At least 40 of the 65 telephone companies operating in that state had less than 500 subscribers at the close of 1945. Half of this number had less than 100 subscribers. Capital investment and operating revenues are likewise very small for companies serving so few subscribers.

Most or all of the independent and mutual systems pay rental to larger companies for switching connections with various arrangements for the interchange of toll charges.

The quality of service provided, of course, varies widely. In general, rural service provided by the small independent and mutual companies is very poor. During winter weather outages are frequent because the maintenance of service depends on poorly equipped crews, or on farmers who volunteer to maintain their own lines. Consequently, the existence of some telephone lines on fence posts or by converting the top wire of a fence is not unusual. It is

obvious that thousands of small companies cannot employ full-time management, but must depend on local people who are otherwise fully employed for their engineering and managerial guidance. Although it may be said that such an arrangement provides cheap service, it is recognized also that the service is of a very low quality.

A large segment of the independent telephone industry (non-Bell) is organized into statewide associations and, in turn, federated into an organization known as the United States Independent Telephone Association. Any telephone company belonging to a state association is informally considered to be a member of the national organization, even though they may not pay dues to the latter organization. The USITA does not accept cooperative and mutual systems as members of its organization.

A smaller segment of the independent industry is represented by an organization known as the Independent Telephone Institute, Incorporated, located in Chicago, Illinois.

Extent of farm telephone service.

Farm telephone service has historically been of poor quality. However, Bell and the larger independent companies have improved their rural service to some areas materially during the last decade. Some small companies and mutual systems have been purchased and consolidated into larger independent and Bell systems. By and large, however, the farms of America are still served inadequately by exceedingly small companies. The history of the growth of farm telephone service has been characterized by rather wide fluctuations, as indicated by the following data, adapted from the United States Census:

<u>Census Year</u>	<u>Number of Farm Telephones</u>	<u>Percentage of Farms with Telephones</u>
1920	2,498,493	38.7
1930	2,139,194	34.0
1940	1,526,954	25.0
1945	1,866,109	31.8
1949 (REA Est.)	2,473,000	42.2

Rural telephone service progressed slowly from the beginning of the century until shortly after World War I. The extent of farm service declined more or less rapidly during the late 20's and early 30's, presumably because of the lack of income paying ability for this service. The small companies and mutual systems lacked the financial ability to maintain adequate service, and farmers apparently felt that they could not afford to pay for such inadequate service.

Following 1935, farm telephone service was again expanded gradually and as farm incomes increased following 1940, a more rapid growth occurred. By 1945, the Census indicated that 31.8 percent of the farms in the United States had telephones. Table I indicates the number and percentage of farms in the various states that had telephones at the end of 1945. It may be noted that the percentage of farms having service ranged from 3.7 percent in Mississippi to 79.3 percent in Iowa. Following 1945, and undoubtedly in response to contemplated telephone legislation, the Bell companies and the larger independent companies made plans to substantially expand their rural lines.

The completion of a three-year program involving the extension of service to one million new rural subscribers was announced by the Bell System during December 1948. In the announcement of the completion of this program, it is claimed that with the additional farms connected under the program 45 percent

of the farms in the Nation now have telephone service. This seems to be somewhat liberal in terms of other available statistics. A survey made by the Bureau of Agricultural Economics as of July 1, 1947, indicated that approximately 37 percent of the farms in the United States had telephone service. The results of this survey are attached as Table II.

Estimates of the percentage of farms having telephone service in the United States at the end of 1948 have not been released by the industry. Therefore, in order to obtain rough estimates of the current status of rural telephone service it is necessary to project the 1945 Census data and the BAE estimates for 1947. Assuming that the same amount of progress was made during the 18 months between July 1, 1947 and January 1, 1949, as was indicated by the BAE estimates as having been made during the 30-month period between December 31, 1944 and July 1, 1947, it is concluded that about 42.2 percent of the farms in the Nation had telephones on January 1, 1949.

Using this basis of projection, the accompanying map indicates the approximate percentage of farms in each state receiving service on January 1, 1949. Although it is felt that these estimates are liberal, it must be recognized that the available basis for making this projection only roughly depicts the picture. Accordingly, the map indicates that in 19 states less than 50 percent of the farms were receiving telephone service regardless of quality. In 11 of these states less than 25 percent of the farms have telephone service. Although a large portion of the Midwest and Great Plains States are indicated as having a high percentage of telephones, it should be recognized that it is these vast rural areas that are being served by the thousands of small independent and

mutual systems. Many of these systems are antiquated and in need of rehabilitation before they can be expected to provide adequate service to their subscribers.

Growth of farm telephone service since 1935.

The expansion of farm telephone service, from the "low point" in 1935 to date, may be compared to the expansion of rural electric service during the same period. During this period, financial assistance by the REA directly resulted in the provision of central station electric service to more than 1,936,000 farms in the United States. In addition, this program spurred the utility companies to expand their rural services in many unserved areas. Thus, the percentage of farms served with electricity was increased from 10.9 percent in 1935 to nearly 73 percent by January 1, 1949 (See following tabulation).

Percentage of Farms with Telephones and Farms
with Electric Service, U.S., 1935-49

Item	Percentage of Farms 1/			
	Dec. 31, 1934	April 1, 1940	Jan. 1, 1945	Jan. 1, 1949 *
Electricity	10.9	30.4	45.7	72.8
Telephones	20.6 **	25.0	31.8	42.2

1/ Based on Census, except as otherwise indicated.

* Estimated by REA for end of calendar year (Preliminary).

** Based on estimate of 1,400,000 farms with telephone service, by Independent Telephone Institute, Inc.

The progress in extending telephone service, without the aid of public credit, was considerably slower. Although 1934 was "the bottom" insofar as telephone service was concerned, there were almost twice as many farms with telephones

as there were with electric service. By the end of 1948 this ratio was almost reversed, with nearly 73 percent of all farms having central station electric service and only 42 percent having telephone service of any quality. It is probably safe to say that from a third to a half of the farms with telephones are receiving inferior service because of inadequate and outmoded facilities.

Industry statistics.

In evaluating various statistics released by the telephone industry, it is necessary to keep in mind the distinction between "farm" telephones and "rural" telephones. For example, the above-mentioned announcement by American Telephone and Telegraph concerning the completion of their three-year program indicated that they had extended service to one million rural subscribers since the end of World War II.

Although they ended this three-year program with a conversation between a North Carolina farmer and the President of the United States, they did not claim that the million connections were entirely farmers. However, a statement appearing in the Telephone Engineer Newsletter for January 7, 1949, misinterpreted the Bell statement relative to the possibility of a public loan program for telephones. The Newsletter statement read in part:

"It is said contention will be made that the 1,000,000 Bell and 400,000 Independent telephones installed on farms since 1945 did not adequately meet farm demand and need for telephones; that too many farms remain without telephones....."

On the contrary, the Bell statement claimed that it took about one and one-quarter million poles to connect the million new rural consumers that they claimed to have served during the three-year period. Assuming 20 poles per

mile, this would indicate a density of approximately 16 subscribers per mile. Obviously, the areas served were not farm areas and it is probable that the above estimate of about 600,000 new farm subscribers served by all systems since January 1, 1945, is quite liberal. This is the approximate number indicated as being served by the increase in the percentage of farms served from 31.8 percent at the end of 1945 to 42.2 percent at the end of 1948.

Typical rural telephone rates.

Subscriber rates have varied more or less widely throughout the country. In general, cooperative and mutual systems have charged substantially lower rates than those of the larger companies. However, during recent years, increasing costs have prompted most of the commercial companies and many of the cooperatives and mutuals to seek higher rates. In some instances, requests published in the magazine "Telephony" indicate that 100 percent increases have been proposed. However, typical rate increases (for company owned and mutually operated multiple-party service) allowed are indicated by the following example taken from recent issues of "Telephony":

<u>Company</u>	<u>Rural residence per month</u>	
	<u>Old rate</u>	<u>Present rate</u>
Hawkins (Ga.) Tel. Co.	\$1.75	\$2.00
Mebane (N. C.) Tel. Co.	2.00	2.00
Miller (Nebr.) Independent Tel. Co.	1.25	2.00
Verdel (Nebr.) Tel. Co.	2.00	2.50
Glenwood (Nebr.) Tel. Co.	1.25	1.90
Goltry (Okla.) Tel. Co.	1.00	1.50
Western Mutual (S.D.) Tel. Co.	2.00	2.50
Dubois (Idaho) Tel. Co.	1.50	1.75
Bellingham (Minn.) Tel. Co.	1.75	2.75
Eden Valley (Minn.) Tel. Co.	2.00	2.50

(7) Princeton Chamber of Commerce, Princeton, West Virginia

"..... telephone communication in the rural sections of this county is in sad shape. A group of citizens are interested in the telephone lines development possibilities of the Rural Electrification setup of the federal government....." (March 1948).

(8) Lac Telephone Co., Charlo, Montana

"I am writing for information which will assist us to provide ourselves with cooperative rural telephone service....." (Feb. 1948).

(9) Mr. Alvin Stewart, Lyman, Wyoming

"We have a co-op telephone system here in Lyman for years but is in a very bad run down condition and needs rebuilding..... I would like to get your help on a telephone loan similar to the REA....." (Feb. 1948).

(10) Mrs. Arthur Henson, Greer, South Carolina

"The Jordan Home Demonstration Club wants to get a telephone line out in this community. We all live on farms, and would like to have one." (Feb. 1948).

(11) John A. Davis, Gettysburg, Pennsylvania

"A year ago, I wrote telling of our great need for telephone service in this community. During that time I have seen and heard of many large barns and contents completely destroyed by fire which might have been saved if a fire department could have been quickly notified." (Feb. 1948).

(12) R. S. Sanford, Attorney, Mocksville, North Carolina

"The REA has brought most of these people lights and all the other conveniences of electric energy, but they are still without any means of immediate communication with their friends and neighbors. What they want now are telephones." (Nov. 1947).

(13) Mt. View Dairy Farm Appomattox, Virginia

"We have been operating a dairy farm for 12 years here and have tried in every way to get a telephone...." (Nov. 1947).

(14) Miss Celia Kramper, Jackson, Nebraska

"We live in the western part of Dakota County and our 'phone service is most unsatisfactory. We have had REA here since 1940." (July 1947).

(15) Extension Agent, East Lansing, Michigan

"..... I know from personal observation and experience that rural telephone service in the State is virtually nonexistent in many areas." (April 1947).

(16) Ohio Farm Bureau Federation, Columbus, Ohio

"There has been much complaint in this state on the part of farmers because of inadequate telephones....." (Feb. 1947).

(17) Mrs. C. T. McLaughlin, Britt, Iowa

"I live on a locally owned rural telephone line, which gives intolerably bad service, and so am eager to see something accomplished toward improving rural telephones." (Feb. 1947).

(18) Voc. Agri. Teacher, Lawndale, North Carolina

"Sometime ago the Polkville Telephone Company went out of business, leaving around 100 farmers and rural people in the upper part of Cleveland County without any means of communication with the outside world." (Feb. 1947).

These are only examples of the many inquiries that are constantly being received by REA from rural people and farm organizations. It is quite obvious from these letters that the number of telephones is not an adequate measure of existing telephone service. The need is for improving the service to many

thousands who may be counted as having a telephone, as well as to the 60 percent of the farms that have no service at all.

Recent developments.

In addition to the above-mentioned expansion of rural telephone service by Bell and some of the independent companies since World War II, the possibility of jointly using rural electric power facilities for telephone communication has been of expanding interest. Two general methods have been explored and applied to a limited extent. The method which has received the greatest attention is that of using power line poles for carrying telephone lines. In this way, the investment in telephone facilities is reduced at least to the extent of the poles required. High strength telephone wire, which does not require as many poles per mile, makes this arrangement possible.

The second procedure for making use of electric facilities is usually referred to as a "carrier" arrangement. In this procedure live electric lines carry the telephonic messages. Although this arrangement is being applied in some locations, it is understood that the development of the necessary facilities for this service is still in the experimental stages.

Since 1945, the Bell companies primarily have become interested in using rural electric facilities for carrying rural telephone lines and service. During 1947, standard "joint use" agreements were developed by REA for this purpose. These are available to the cooperatives and the telephone companies. To date, 173 rural electric cooperatives have signed "joint use" agreements with various telephone companies. In numerous cases, these cooperatives have both "pole" and "carrier" contracts. Thus, 75 rural electric cooperatives

have signed "pole use" agreements or contracts, and 135 cooperatives have signed "carrier" agreements with telephone companies.

However, until additional information is obtained from the cooperatives, we are unable to estimate the number of rural subscribers that have been provided telephone service under the terms of these agreements.

It is understood, however, that the smaller independent and mutual systems are unable to take advantage of such "joint use" arrangements because of inadequate financing. In other instances, some rural electric cooperatives have been reluctant to sign agreements with the larger companies, which have adequate financial resources, because the telephone companies would not agree to provide service to all the cooperatives' members.

There is reason to believe that if adequate financing were available, the smaller independent companies and mutual systems would be in a position to enter "joint use" arrangements with the rural electric cooperatives for serving rural areas on an area coverage basis. At least this is a possibility that holds considerable promise.

Solution of the farm telephone problem.

The task of providing farm telephone service throughout the United States consists of two major jobs. First, there is the job of rehabilitating and modernizing a vast number of the small telephone systems, consisting of both mutual and small stock companies. Second, any solution to the problem must include provision for the extension of telephone facilities to more than half of the nation's farms - those that now have no service at all.

Need for financial assistance.

The USITA, representing a large number of the independent companies, recognizes the general need for credit. Their Finance Task Group of the Rural Telephone Service Committee reported in 1945 as follows:

"The problem of financing for the small telephone company to provide funds necessary for plant replacement and improved equipment is one of major importance in the independent industry."

The report goes on to review the possibilities of encouraging local banks and other credit institutions to make credit more readily available for telephone financing. Nevertheless, it is generally agreed that the problem of credit for this purpose is still as acute as ever. Numerous inquiries concerning the possibility of public credit and the general lack of improvement in strictly rural telephone service is indicative of a continuation of this need.

The Independent Telephone Institute, Inc., under the leadership of Mr. E. C. Blomeyer, has expressed a favorable attitude toward a public credit program. In a pamphlet entitled, "The Farm Telephone Story", Mr. Blomeyer made the following comments concerning the Hill bill (S.2213, 78th Congress, 2nd Session):

"The vital question is that of how the small independent companies are going to get the money with which to do their part of the job if this legislation is not enacted.

"Their's is no small part of the job. There are some 6100 independent companies smaller than Class B (less than \$50,000 annual gross operating revenue); they operate about 8500 telephone exchanges. Many of them will need financing for their coming capital needs.

"Included in these are some 5500 small companies operating about 6500 telephone exchanges of fewer than 500 telephones each. Some of those exchanges, operated by about 4700 of these companies, have fewer than 250 telephones each.

"These small exchanges are right out in the middle of where the farms are. They will have to take on their part of the new load. That part appears to be somewhere between 30 percent to near one-half of all the farm telephones in the United States - depending on how many of the companies or exchanges are included in the calculations.

"That is a part of the load that cannot be ignored. Unless it is taken care of the consequences of the whole independent part of the telephone industry may be serious, since the failure of all or any substantial part of the independent telephone industry to carry its full share of the load would be the best possible evidence that, in order to assure the American public modern and high-quality telephone service everywhere, the whole business should be under the ownership and management of one organization - or of the government."

NUMBER AND PERCENTAGE OF FARMS WITH TELEPHONES

UNITED STATES, 1945

(U. S. Census of Agriculture)

	<u>Total number of farms</u>	<u>Number reporting telephones</u>	<u>Percent reporting telephones</u>
United States	5,859,169	1,866,109	31.8
Alabama	223,369	11,162	5.0
Arizona	13,142	4,661	35.5
Arkansas	198,769	13,815	7.0
California	138,917	60,421	43.5
Colorado	47,618	22,106	46.4
Connecticut	22,241	17,225	77.4
Delaware	9,296	3,694	39.7
Florida	61,159	6,429	10.5
Georgia	225,897	13,558	6.0
Idaho	41,498	17,421	42.0
Illinois	204,239	124,039	60.7
Indiana	175,970	97,236	55.3
Iowa	208,934	165,760	79.3
Kansas	141,192	91,299	64.7
Kentucky	238,501	42,118	17.7
Louisiana	129,295	6,434	5.0
Maine	42,184	22,642	53.7
Maryland	41,315	17,137	41.5
Massachusetts	37,007	26,295	71.1
Michigan	175,268	68,858	39.3
Minnesota	188,952	103,178	54.6
Mississippi	263,528	9,797	3.7
Missouri	242,934	109,055	44.9
Montana	37,747	7,847	20.8
Nebraska	111,756	63,195	56.5
Nevada	3,429	1,508	44.0
New Hampshire	18,786	11,795	62.8
New Jersey	26,226	13,842	52.8
New Mexico	29,695	3,175	10.7
New York	149,490	78,484	52.5
North Carolina	287,412	14,539	5.1
North Dakota	69,520	23,641	34.0
Ohio	220,575	111,461	50.5
Oklahoma	164,790	41,101	24.9
Oregon	63,125	25,643	40.6
Pennsylvania	171,761	69,455	40.4
Rhode Island	3,603	2,338	64.9
South Carolina	147,745	6,306	4.3
South Dakota	68,705	31,145	45.3
Tennessee	234,431	36,365	15.5
Texas	384,977	67,725	17.6
Utah	26,322	8,479	32.2
Vermont	26,490	14,604	55.1
Virginia	173,051	31,835	18.4
Washington	79,887	35,502	44.4
West Virginia	97,600	21,599	22.1
Wisconsin	177,745	86,107	48.4
Wyoming	13,076	4,054	31.0

Percent of Farms Having Telephones, July 1947
by States 2/

New England <u>1/</u>	72
New York	60
New Jersey	<u>1/</u>
Pennsylvania	52
Middle Atlantic States	56
Ohio	58
Indiana	62
Illinois	72
Michigan	46
Wisconsin	59
East North Central States	60
Minnesota	63
Iowa	81
Missouri	<u>1/</u>
North Dakota	44
South Dakota	48
Nebraska	66
Kansas	72
West North Central States	61
Maryland & Delaware	<u>1/</u>
Virginia	<u>1/</u>
West Virginia	<u>1/</u>
North Carolina	Less than 10
South Carolina	Less than 10
Georgia	Less than 10
Florida	Less than 10
South Atlantic States	12
Kentucky	24
Tennessee	16
Alabama	Less than 10
Mississippi	Less than 10
East South Central States	13
Arkansas	Less than 10
Louisiana	10
Oklahoma	32
Texas	22
West South Central States	18
Mountain States (Ariz., Colo., Idaho, Mont., Nev., New Mex., Utah, Wyo.) <u>1/</u>	53
Washington	58
Oregon	54
California	51
Pacific States	54
United States	37

1/ Sample too small for individual State estimates.

2/ Percentage of 8400 farms reporting to BAE July 1947.